The following Listing of Claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS:

1. (Currently Amended) A rotor comprising:

a rotor core having a rotor surface;

a plurality of permanent magnets embedded in the rotor core with each of the permanent magnets ~~having a pair of poles,~~ defining a pole of the rotor, each pole of the rotor having a pole center;

a plurality of first non-magnetic layers ~~with one of the first non-magnetic layers~~ being located between ~~each~~ adjacent pairs of the permanent magnets along the rotor surface, each first non-magnetic layer ~~and~~ being continuous or adjacent to a peripheral edge section of one ~~each~~ of the permanent magnets in a vicinity between the poles and a vicinity of the rotor surface; and

a plurality of second non-magnetic layers ~~with one of the second non-magnetic layers~~ being located in a vicinity of the rotor surface at [[a]] pole center side positions with respect to the ~~peripheral edge section of each of the permanent magnets or the~~ first non-magnetic layers,

the first non-magnetic layers and the second non-magnetic layers being positioned to cancel n-th order harmonics (where n is an odd number and is equal to or greater than 3) of an induction voltage, the first non-magnetic layers and the second non-magnetic layers being positioned symmetrically relative to the pole centers.

2. (Previously Amended) The rotor as set forth in claim 1, wherein the n-th order harmonics is an odd numbered order harmonics, the odd number being equal to or greater than 3 and other than multiples of 3.

3. (Previously Amended) The rotor as set forth in claim 1, wherein the n-th order harmonics is an odd numbered order harmonics, the odd number being equal to or greater than 13 and other than multiples of 3.

4. (Previously Amended) The rotor as set forth in claim 2, wherein the n-th order harmonics is 5-th order harmonics or 7-th order harmonics.

5. (Previously Amended) The rotor as set forth in claim 4, wherein the peripheral edge section of each of the permanent magnets or the first non-magnetic layers and the second non-magnetic layers are independent from one another, and the rotor core is interposed between them.

6. (Currently Amended) The rotor as set forth in claim 4, wherein an angle θ 1 is measured between ~~the peripheral edge section of each of the permanent magnets or~~ a pole center side edge section, in the vicinity of the rotor surface, ~~adjacent each~~ of the first non-magnetic ~~layers~~ layer and a position between the poles, and

an angle θ 2 is measured between ~~the~~ a pole center side edge section, in the vicinity of the rotor surface, ~~adjacent each~~ of the second non-magnetic ~~layers~~ layer and the ~~poles~~ position, wherein ~~are determined to be~~

$$0 < \theta 1 < 180/(5 \cdot Pn) \text{ and } 180/(5 \cdot Pn) \leqq \theta 2 \leqq 180 \times 2/(5 \cdot Pn)$$

or

$$0 < \theta 1 < 180/(7 \cdot Pn) \text{ and } 180/(7 \cdot Pn) \leqq \theta 2 \leqq 180 \times 2/(7 \cdot Pn)$$

where a pole pair number is Pn.

7. (Previously Presented) The rotor as set forth in claim 6, wherein the angle θ 1 and the angle θ 2 satisfy either

$$0 < \theta 1 < 180/(5 \cdot Pn) \text{ and } \theta 2 = 180/(5 \cdot Pn)$$

or

$$0 < \theta 1 < 180/(7 \cdot Pn) \text{ and } \theta 2 = 180/(7 \cdot Pn).$$

8. (Currently Amended) The rotor as set forth in claim 4, wherein an angle θ 5 is measured between ~~the peripheral edge section of each of the permanent magnets or~~ a pole center side edge section, in the vicinity of the rotor surface, ~~adjacent each~~ of the first non-magnetic ~~layers~~ layer and a position between the poles, ~~and~~

an angle θ 6 is measured between ~~the~~ a pole center side edge section, in the vicinity of the rotor surface, ~~adjacent each~~ of the second non-magnetic ~~layers~~ layer and the ~~poles~~ position between the poles, wherein ~~are determined to be~~

$$0 < \theta 5 < 180/(5 \cdot Pn) \text{ and } 180/(5 \cdot Pn) \leqq \theta 6 \leqq 180 \times 2/(5 \cdot Pn)$$

where a pole pair number is Pn, ~~and~~

a rotor core section width has points of inflection, the rotor core section width being sandwiched by ~~the peripheral edge section of each of the permanent magnets or~~ the first non-magnetic layers and the second non-magnetic layers and the rotor surface,

angles θ 7 and θ 8 are measured between respective points of inflection and ~~between poles~~ the position between the poles, wherein ~~are determined to be~~

$$0 < \theta 7 < 180/(7 \cdot Pn) \text{ and } 180/(7 \cdot Pn) \leqq \theta 8 \leqq 180 \times 2/(7 \cdot Pn)$$

where a pole pair number is Pn, and

a relationship of the angles θ 5, θ 6, θ 7 and θ 8 is ~~determined to be~~

$\theta 7 < \theta 5 < \theta 8 < \theta 6$.

9. (Previously Presented) The rotor as set forth in claim 8, wherein

the angle θ 5 is $0 < \theta 5 < 180/(5 \cdot Pn)$, the angle θ 7 is $0 < \theta 7 < 180/(7 \cdot Pn)$, the angle θ 6 is $180/(5 \cdot Pn)$, and the angle θ 8 is $180/(7 \cdot Pn)$.

10. (Previously Presented) The rotor as set forth in claim 1, wherein

each of the permanent magnets is divided into multiple layers in a radial direction.

11. (Currently Amended) The rotor as set forth in claim 10, wherein

each of the permanent magnets is divided into two layers in a radial direction, ~~and~~

an angle θ 3 is measured between ~~the peripheral edge section of the permanent magnet in an inner side of the rotor or~~ a pole center side edge section, in the vicinity of a rotor surface, ~~adjacent each~~ of the first non-magnetic ~~layers and the poles,~~ layer continuous or adjacent to the permanent magnet in an inner side of the rotor and a position between the poles, and

an angle $\theta 4$ is measured between ~~the peripheral edge section of the permanent magnet in an outer side of the rotor or the~~ a pole center side edge section, in the vicinity of the rotor surface, ~~adjacent section~~ of the first non-magnetic ~~layers and the poles~~ layer continuous or adjacent to the permanent magnet in an outer side of the rotor and the position between the poles, wherein ~~are determined to be~~

$$0 < \theta 3 < 180/(5 \cdot Pn) \text{ and } 180/(5 \cdot Pn) \leqq \theta 4 \leqq 180 \times 2/(5 \cdot Pn)$$

or

$$0 < \theta 3 < 180/(7 \cdot Pn) \text{ and } 180/(7 \cdot Pn) \leqq \theta 4 \leqq 180 \times 2/(7 \cdot Pn)$$

where a pole pair number is Pn.

12. (Previously Presented) The rotor as set forth in claim 11, wherein the angle $\theta 3$ and the angle $\theta 4$ satisfy either

$$0 < \theta 3 < 180/(5 \cdot Pn) \text{ and } \theta 4 = 180/(5 \cdot Pn)$$

or

$$0 < \theta 3 < 180/(7 \cdot Pn) \text{ and } \theta 4 = 180/(7 \cdot Pn).$$

13. (Currently Amended) The rotor as set forth in claim 10, wherein

each of the permanent magnets is divided into two layers in a radial direction, and an angle $\theta 9$ between a pole center side edge section, in the vicinity of the rotor surface, ~~adjacent each~~ of the permanent ~~magnets~~ magnet in an inner side of the rotor and a position between the poles, and

an angle $\theta 10$ is measured between ~~the~~ a pole center side edge section, in the vicinity of the rotor surface, ~~adjacent each~~ of the permanent ~~magnets~~ magnet in an outer side of the rotor and the ~~poles~~ position between the poles, wherein ~~are determined to be~~

$$0 < \theta 9 < 180/(5 \cdot Pn) \text{ and } 180/(5 \cdot Pn) \leqq \theta 10 \leqq 180 \times 2/(5 \cdot Pn)$$

where a pole pair number is Pn,

a rotor core section width has points of inflection, the rotor core section width being sandwiched by the ~~peripheral edge sections of~~ first non-magnetic layer continuous or adjacent to the permanent ~~magnets~~ magnet on the inner side of the rotor ~~or the first non-magnetic layers~~ and the ~~peripheral edge sections of~~ first non-magnetic layer continuous or adjacent to

the permanent ~~magnets~~ magnet on the outer side of the rotor ~~or the first non-magnetic layers~~, and

angles $\theta 11$ and $\theta 12$ are measured between respective points of inflection and the position between the poles, wherein ~~are determined to be~~

$$0 < \theta 11 < 180/(7 \cdot Pn) \text{ and } 180/(7 \cdot Pn) \leqq \theta 12 \leqq 180 \times 2/(7 \cdot Pn)$$

where a pole pair number is Pn, and

a relationship of the angles $\theta 9$, $\theta 10$, $\theta 11$ and $\theta 12$ is ~~determined to be~~ $\theta 11 < \theta 9 < \theta 12 < \theta 10$.

14. (Previously Presented) The rotor as set forth in claim 13, wherein

the angle $\theta 9$ is $0 < \theta 9 < 180/(5 \cdot Pn)$, the angle $\theta 11$ is $0 < \theta 11 < 180/(7 \cdot Pn)$, the angle $\theta 10$ is $180/(5 \cdot Pn)$, and the angle $\theta 12$ is $180/(7 \cdot Pn)$.

15. (Currently Amended) The rotor as set forth in claim 5, wherein

an angle $\theta 1$ is measured between ~~the peripheral edge section of each of the permanent magnets or~~ a pole center side edge section, in the vicinity of the rotor surface, ~~adjacent each~~ of the first non-magnetic ~~layers~~ layer and a position between the poles, and

an angle $\theta 2$ is measured between ~~the~~ a pole center side edge section, in the vicinity of the rotor surface, ~~adjacent each~~ of the second non-magnetic ~~layers~~ layer and the ~~poles~~ position between the poles, wherein ~~are determined to be~~

$$0 < \theta 1 < 180/(5 \cdot Pn) \text{ and } 180/(5 \cdot Pn) \leqq \theta 2 \leqq 180 \times 2/(5 \cdot Pn)$$

or

$$0 < \theta 1 < 180/(7 \cdot Pn) \text{ and } 180/(7 \cdot Pn) \leqq \theta 2 \leqq 180 \times 2/(7 \cdot Pn)$$

where a pole pair number is Pn.

16. (Previously Presented) The rotor as set forth in claim 15, wherein

the angle $\theta 1$ and the angle $\theta 2$ satisfy either

$$0 < \theta 1 < 180/(5 \cdot Pn) \text{ and } \theta 2 = 180/(5 \cdot Pn)$$

or

$$0 < \theta 1 < 180/(7 \cdot Pn) \text{ and } \theta 2 = 180/(7 \cdot Pn).$$

17. (Currently Amended) The rotor as set forth in claim 5, wherein

an angle $\theta 5$ is measured between ~~the peripheral edge section of each of the permanent magnets or~~ a pole center side edge section, in the vicinity of the rotor surface, ~~adjacent each~~ of the first non-magnetic ~~layers~~ layer and a position between the poles, ~~and~~

an angle $\theta 6$ is measured between ~~the~~ a pole center side edge section, in the vicinity of the rotor surface, ~~adjacent each~~ of the second non-magnetic ~~layers~~ layer and the ~~poles~~ position between the poles, wherein ~~are determined to be~~

$$0 < \theta 5 < 180/(5 \cdot Pn) \text{ and } 180/(5 \cdot Pn) \leqq \theta 6 \leqq 180 \times 2/(5 \cdot Pn)$$

where a pole pair number is Pn,

a rotor core section width has points of inflection, the rotor core section width being sandwiched by ~~the peripheral edge section of each of the permanent magnets or each of~~ the first non-magnetic layers and the second non-magnetic layers and the rotor surface, and

angles $\theta 7$ and $\theta 8$ are measured between respective points of inflection and the position between the poles, wherein ~~are determined to be~~

$$0 < \theta 7 < 180/(7 \cdot Pn) \text{ and } 180/(7 \cdot Pn) \leqq \theta 8 \leqq 180 \times 2/(7 \cdot Pn)$$

where a pole pair number is Pn, and

a relationship of the angles $\theta 5$, $\theta 6$, $\theta 7$ and $\theta 8$ is ~~determined to be~~

$\theta 7 < \theta 5 < \theta 8 < \theta 6$.

18. (Previously Presented) The rotor as set forth in claim 17, wherein

the angle $\theta 5$ is $0 < \theta 5 < 180/(5 \cdot Pn)$, the angle $\theta 7$ is $0 < \theta 7 < 180/(7 \cdot Pn)$, the angle $\theta 6$ is $180/(5 \cdot Pn)$, and the angle $\theta 8$ is $180/(7 \cdot Pn)$.

19. (Previously Presented) The rotor as set forth in claim 2 wherein

each of the permanent magnets is divided into multiple layers in a radial direction.

20. (Currently Amended) The rotor as set forth in claim 19, wherein

each of the permanent magnets is divided into two layers in a radial direction, ~~and~~

an angle $\theta 3$ is measured between ~~the peripheral edge section of the permanent magnet in an inner side of the rotor or~~ a pole center side edge section, in the vicinity of the rotor surface, ~~adjacent each~~ of the first non-magnetic ~~layers and the poles,~~ layer continuous or adjacent to the permanent magnet in an inner side of the rotor and a position between the poles, and

an angle $\theta 4$ is measured between ~~the peripheral edge section of the permanent magnet in an outer side of the rotor or the~~ a pole center side edge section, in the vicinity of the rotor surface, ~~adjacent each~~ of the first non-magnetic ~~layers and the poles~~ layer continuous or adjacent to the permanent magnet in an outer side of the rotor and the position between the poles, wherein ~~are determined to be~~

$$0 < \theta 3 < 180/(5 \cdot Pn) \text{ and } 180/(5 \cdot Pn) \leqq \theta 4 \leqq 180 \times 2/(5 \cdot Pn)$$

or

$$0 < \theta 3 < 180/(7 \cdot Pn) \text{ and } 180/(7 \cdot Pn) \leqq \theta 4 \leqq 180 \times 2/(7 \cdot Pn)$$

where a pole pair number is Pn.

21. (New) A rotor comprising:

a rotor core having a rotor surface;

a plurality of permanent magnets embedded in the rotor core with each of the permanent magnets each defining a pole of the rotor, each pole of the rotor having a pole center, and a peripheral edge section of each of the permanent magnets being located in a vicinity between the poles and a vicinity of the rotor surface; and

a plurality of non-magnetic layers being located in a vicinity of the rotor surface at a pole center side position with respect to the peripheral edge section of each of the permanent magnets,

the peripheral edge sections and the non-magnetic layers being positioned to cancel n-th order harmonics (where n is an odd number and is equal to or greater than 3) of an induction voltage, the non-magnetic layers being positioned symmetrically relative to the pole centers.